REMARKS

Reconsideration of the application is requested.

Claims 15 - 22 and 24 - 29 are now in the application. Claims 17, 18, and 24 have been amended. Claim 23 has been canceled. Claim 29 has been added.

The amendment to claims 17, 18, and 24 is responsive to the objections and the rejection appearing on page 3 of the Office action. Should the Examiner find any further objectionable issues, counsel would appreciate a telephone call so that the matter may be resolved.

Claim 29 corresponds to the canceled claim 23, including its base claim 11 and the intervening claims 15, 21, and 22. Claim 29, therefore, is believed to be in condition for allowance.

We now turn to the art rejection, in which claims 15-21 have been rejected as being anticipated by Reyer et al. (DE 198 34 943 A1, hereinafter "Reyer") under 35 U.S.C. § 102. We respectfully traverse.

To begin with, the reference Reyer and the instant application are commonly assigned and applicants are intimately familiar with the reference teaching. Reyer does not pertain to a method for generating a structure representation from a model structure representation. In order to facilitate a better understanding, and a proper comparison of teachings, we will first briefly outline the invention of the instant patent application.

In order to enter the components actually present in an automation system as easily as possible into a structure representation describing the specific automation system (specific automation system: automation system as actually assembled), a general model structure representation is used at first (model structure representation: description of a general automation system. The specific automation system is a subcategory of the general automation system). The model structure representation, however, contains each of the possible components in the specific automation system exactly once in a hierarchical configuration in form of a so-called functional group. Reference is had to the illustration in Fig. 3.

In order to generate a hierarchical view of the automation system in accordance with Fig. 3, as shown for example in Fig. 2 of the instant patent application, a data processing device controlling the automation system interrogates the components actually present in the specific automation system and enters the components of the specific automation system thus found into the model structure representation in accordance with Fig. 3. In this case, the actual number of the components present in the specific automation system is in each case assigned to one of the functional groups shown in Fig. 3. If this is performed for all hierarchical levels of the model structure representation according to Fig. 3, the representation according to Fig. 2 is obtained from the representation according to Fig. 3.

In other words, the method according to the invention allows for the flexible and dynamic interrogation of the actual structure of an automation system without the latter being known in advance.

Turning now to Reyer, there is illustrated an automation system with respect to its mechanical structure in Fig. 2, for example. Reyer explains:

> The left-hand side of Fig. 2 shows an example of the mechanical structure of an automation system, consisting of the functional units FE, superordinate functional groups PG and functional regions FB, combined in an overall installation GA.

Reyer, col. 2, lines 64-68, in translation.

> The functional units FE, functional groups FG, functional regions FB, and the overall installation GA represent structural elements of the structure of the automation system. The right-hand side illustrates the program-technical structure as an image of the mechanical structure with the same organization.

Reyer, col. 3, lines 4-10, in translation.

That is, the tree structure representation of the automation system in accordance with Fig. 2 (Reyer) corresponds approximately to the structure representation of a specific automation system in accordance with Fig. 2 of the instant application. Reyer, however, does not disclose a method with which the representation according to Fig. 2 is obtained from a model structure representation. In fact, a model structure representation is not at all addressed in Reyer.

To be precise, Reyer pertains to a method for collecting and summarizing in different lists (address list, structure list, module list) messages resulting from a functional component that controls sensors and actuators and for making them available to an operating and monitoring system.

The Examiner apparently reads the model structure representation on the functional group data component FGDB or the functional component data component FEDB. We respectfully disagree. Reyer explains:

> The signals and operation data are parametrized once and, on restart, the static part is entered once in a data block FEDB associated with the functional component FEFB and the dynamic part is continuously evaluated by the functional component FEFB and entered into the data block FEDB. Accordingly, all of the relevant data, which are required for controlling the functional unit FE, are contained in the associated data block FEDB.

Reyer, col. 2, lines 22-30 (in translation) and Fig. 1.

That is, Reyer's functional component data block FEDB is a data-technical representation of the identification of the sensors and actuators as well as of the signals, which have been generated by the sensors S or the actuators A at the functional component of the functional component FEFB. The functional component data block FEDB, therefore, is <u>not</u> a model structure representation of an automation system. Instead, it is a data representation of the identification and the states of the functional component of the functional component FEFB or of the sensors and actuators assigned to it. Corresponding facts apply to the functional group data component FGDB, which is solely a data-technical representation of the functional component of the functional group FGFB. As can be gathered from Fig. 2, several functional components FE are assigned to a functional component of a functional group FGFB.

The Examiner further argues that the data processing device, which controls the specific automation system, is comparable to the autonomous functional component FE. As can be gathered from Reyer (col. 2, lines 14-20), however, such a functional

unit FE solely represents an individual component of the entire automation system, which is self-sufficiently controlled by a functional component FEFB in cooperation with a data component FEDB. It is therefore in no case a data processing device that controls the entire specific automation system.

The Examiner finally argues that the structure representation, which describes the specific automation system, is represented by the functional group data component FGDB. Here, the Examiner applies the term "functional group data component FGDB" to the model structure representation as well as to the structure representation of the specific automation system. This, however, cannot be, since the structure representation of the specific automation system differs from the model structure representation and the method according to the invention is directed toward obtaining the structure representation of the specific automation system from the model structure representation.

It is respectfully submitted that the reference Reyer does not anticipate the invention of claim 15. Further, Reyer pertains to a different technical context than the method according to the instant application and, accordingly, claim 15 is not anticipated by Reyer. Reconsideration of the rejection of claims 15-21 is respectfully urged.

We now turn to the art rejections in which claims 22, 24, and 28 have been rejected as being obvious over the combined teachings of Reyer and Moon et al. (US 2004/0078105 A1, hereinafter "Moon") under 35 U.S.C. § 103. We respectfully traverse.

While Moon does indeed deal with data structures in XML format and the path structure according to X-path, the reference pertains to entirely different subject matter. Moon concerns a supporting software for controlling workflow (workflow management). Due to these different subject areas, the person of skill in the art would therefore not consider Reyer in combination with Moon. Even if he did, however, he would still not arrive at the subject matter of claims 22, 24 and 28, for the reasons outlined above with reference to claim 15.

Claims 25-27 have been rejected as being obvious over the combined teachings of Reyer with Blevins et al. (US 2004/0170138 A1, hereinafter "Blevins") under 35 U.S.C. § 103. We respectfully traverse.

Blevins pertains to an automation system, wherein also a graphic indicator can be illustrated onto a user device. The teachings of the secondary reference cannot make up for the shortcomings of Reyer, delineated above with reference to claim 15.

In summary, neither Reyer nor any other one of the references, whether taken alone or in any combination, either show or suggest the features of claim 15. Claim 15 is, therefore, patentable over the art and since all of the dependent claims are ultimately dependent on claim 15, they are patentable as well.

Claim 29 is in condition for allowance.

In view of the foregoing, the allowance of claims 15-22 and 24-29 is solicited.

Respectfully submitted,

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